

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017866**Date Inspected:** 18-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

OBG # TRIAL ASSEMBLY YARD

**WELDING****Segment # 10CW**

This QA inspector observed ZPMC qualified welding personnel identified as 067656 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG063E-016; located On Orthotropic Box Girder (OBG) Bottom Plate to Side Plate CJP Weld; excavated weld due to Flatness rejected areas. The Critical Welding Repair Report (CWRR) was B-CWR2000. ZPMC Quality Control (QC) is identified as Mr. Zhang Qiang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW 4G (4F) FCM Repair-1 See the attached Photo.

**Segment # 10AW**

This QA inspector observed ZPMC qualified welding personnel identified as 067656 perform Shielded Metal Arc

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Welding (SMAW), weld joint identified as SEG059D-151; located On Orthotropic Box Girder (OBG) Bottom Plate to Side Plate CJP Weld; excavated weld due to Flatness rejected areas. The Critical Welding Repair Report (CWRR) was B-CWR2004. ZPMC Quality Control (QC) is identified as Mr. Zhang Qiang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW 3G (3F) FCM Repair-1.

### Segment # 11BE

This QA inspector observed ZPMC qualified welding personnel identified as 052763 perform Flux Core Arc Welding (FCAW), weld joint identified as SEG068C-043; located On Orthotropic Box Girder (OBG) Longitudinal Diaphragm to Floor Beam. ZPMC Quality Control (QC) is identified as Mr. An Qing Xiang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-TC-U4b-F

### Segment # 11BE

This QA inspector observed ZPMC qualified welding personnel identified as 047353 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG068B-043; located On Orthotropic Box Girder (OBG) Longitudinal Diaphragm to Floor Beam. ZPMC Quality Control (QC) is identified as Mr. An Qing Xiang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-TC-U4b-F

### Segment # 11BE

This QA inspector observed ZPMC qualified welding personnel identified as 044515 perform Flux Core Arc Welding (FCAW), weld joint identified as SEG068B-057; located On Orthotropic Box Girder (OBG) Longitudinal Diaphragm to Floor Beam. ZPMC Quality Control (QC) is identified as Mr. An Qing Xiang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-TC-U4b-F

### Segment # 11AW ~ 11BW

During random visual inspection this Caltrans Quality Assurance (QA) inspector observed that American Bridge Fluor (ABF) Quality Assurance (QA) personnel had performed Ultrasonic Testing (UT); ABF (QA) is identified as Mr. Ding on Side Plate to Side Plate Transverse CJP Weld; Weld Joint identified as OBW11B-002 in OBG segment 11AW~ 11BW.

### HEAT STRAIGHTENING

This QA Inspector observed the following work in progress:

ZPMC personnel heat straightening Orthotropic Box Girder (OBG) member identified as Longitudinal Diaphragm. Distortion appeared to be caused by Welding. ZPMC Quality Control (QC) inspector identified as Mr. An Qing Xiang was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report HSR1 (B) 9654.

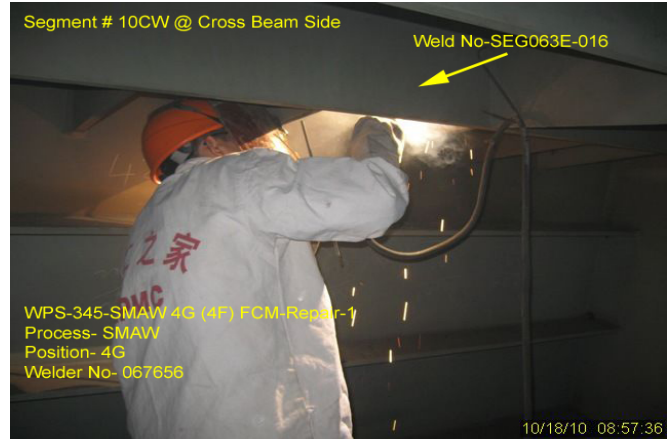
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Prabhune,Manoj	Quality Assurance Inspector
<b>Reviewed By:</b>	Patterson,Rodney	QA Reviewer

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